THE

CONSTITUTION OF WOMEN,

AS ILLUSTRATED BY

ABDOMINAL CELLULITIS OR INFLAMMATION

OF THE

CELLULAR MEMBRANE OF THE ABDOMEN AND PELVIS.

BY

CHARLES BELL, M.D.,

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS, EDINBURGH.

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THE CONSTITUTION OF WOMEN, ETC.

The phlegmonous inflammation which affects the interstitial or cellular substance of the abdomen, and in many instances involving that of the pelvis, is a subject of deep interest and importance both to the general practitioner and the accoucheur. It demands their serious attention, not only from its great frequency, its alarming urgency and rapid progress in some individuals, its obscure and lingering course in others, but especially from the fatal results which may ensue both when it occurs after parturition and in those who have never been pregnant.

Although this form of inflammation has attracted much attention recently, under the designation of pelvic abscess, it is far from being a new disease, or one of endemic character, as we find it mentioned by some of the most ancient physicians, and it is well described by many continental authors, who have written at different periods. It is remarkable, however, that it has been entirely overlooked as a distinct disease by all our systematic authors on midwifery and the diseases of females; and almost the only information we have regarding it in this country, previous to Dr Doherty's valuable paper "On Chronic Inflammation of the Uterine Appendages," is contained in some isolated cases, widely scattered through our periodical publications and works on midwifery, in which it is described under as many denominations nearly as there are authors. We are, therefore, frequently at a loss to know what disease we are reading about until we have finished the description of the case. This vague and unsatisfactory condition of our information is the more unaccountable, from the fact that the disease is of almost daily occurrence in all ranks of society.

Before entering on the discussion of cellulitis and its treatment, I shall briefly refer, in a sort of chronological order, to what has been said by previous authors, as I consider there is no study more interesting and instructive than the history of disease, in which is traced the progress of our information regarding it from the period when it first attracted the attention of the physician. I am aware, however, that this is a description of knowledge which has been little cultivated in the present day, hence the assumption, by some recent authors, of discoveries and improvements in practice, which a little investigation proves were well known to their predecessors.

Œtius and Paulus Œgineta,[1] are apparently the earliest authors who have made any reference to cellulitis, which they do under the head of abscess connected with the uterus. The information they afford, however, is exceedingly meagre, and deserves notice only as showing that this disease had attracted the attention of physicians at that early period.

Among the more modern authors, who have treated of this subject, Primrose is the most eminent, and he gives the first distinct description of cellulitis, when treating of inflammation of the uterus, in the following words:—"Interdum in pus et saniem vertitur, abscessumque parit, tunc prædicta omnia signa, dolor scilicet, pulsatio, febris, invalescunt, febres fiunt inordinatæ cum horrore, et omnia symptomata intenduntur, facto autem puro mitescunt. Sed vomicâ erumpente doleres acres, lancinantes, et pungentes redeunt, urina et alvus supprimuntur, nonnunquam tumor in pube eminet, et veluti exundationis sensus adest, cum abscessus major fuerit, ex Paulo. Quòd si factus abscessus versus exteriora rumpatur, pus effundetur in capacitatem ventris, et abdomen distendet: Sed si parte internâ in ipsam uteri cavitatem rumpatur, per collum uteri vacuari poterit, sed remanebit in utero ulcus magnum et sordidum, cui vel hydrops, vel tabes succedet. In cervice autem disruptus abscessus interdum per illam expurgatur, interdum per vesicam, interdum per rectum intestinum, tuncque simul fæcis aliquid per uterum vacuatur fit que uteri fistula." "Motu difficili crurum."[2]

Mauriceau,[3] seems to refer to cellulitis when treating of suppression of the lochia, which he considered one of the most dangerous accidents which could happen to a woman, because it was liable to be followed by many other diseases, among which he enumerated abscess of the lower part of the abdomen. He had, however, very crude notions on the subject, and, in consequence, his remarks are of little value.

La Motte[4] relates some interesting cases of cellulitis, both under

[1] Translation by Adams, vol. i., p. 623.
[2] *De Morbis Mulierum*, Lib. ii. p. 116–7. Pub. 1655.
[3] *Traite Des Accouchemens*, p. 404–9. Pub. 1675.
[4] *Traite Des Accouchemens*, p. 922–31. Pub. 1729.

the head suppression of the lochia and when treating of inflammation of the uterus. He seems to have been well acquainted with the character of the disease, and his observations on the subject, and the treatment he recommends, are most judicious, and deserve the attention of the physician.

Baglivi[1] refers shortly to cellulitis in the following words, under the name of abscess of the mesentery:—"Abscessus mesenterii quando rumpuntur, per venam proximam exonerari solent in intestina purulenti humores, et per continuum puris exitum per hujusmodi vias, sanari; at si abscessus rumpatur, et exoneretur, per intermedios abdominis musculos, tunc difficulter foris exit pus, et difficulter exterius manifestatur colere, tumore, dolore; febricula tamen nocturna sudor, rubor, occuli, è directo succussio vehemens in lecto facta latentem inter musculos saniem manifestant."

M. Jean Maria,[2] who wrote soon after Baglivi, refers to cellulitis, but he obviously had a very imperfect knowledge of the subject. He considered that the overflowing of the milk in the female system was liable to produce abscesses in puerperal women, which were slow and difficult to heal, unless they evacuated themselves into the uterus. In order to prevent the engorgements of milk, he ordered depletion, which was to be regulated by the character of the lochia. If that discharge were red, blood was to be taken from the feet; and if it were white, the blood was to be drawn from the arm.[3] This author has overlooked the fact that the lochia are not always present even when the disease does occur after parturition, also that the disease was liable to take place in those who had never been pregnant.

Puzos[4] has treated of cellulitis at considerable length, and with great acuteness, under the designation of "Dépôt Laiteux dans l'hypogastre." This author, as this designation indicates, like all those who had previously written on puerperal diseases, entertained the erroneous notion that all such ailments were the result of a superabundance of milk in the female system, an idea which seems to have prevailed even to the time of the celebrated Hunter, who, we shall find, was imbued with the same error.[4] Puzos states, that he was not acquainted with any author who had described the early symptoms of cellulitis, or the means by which it could be checked. We are, therefore, led to conclude, that all his information on this subject is the result of his own observation and experience—a circumstance, which is the more remarkable, when we read the accurate descriptions of the disease previous to his time, and find him referring to the observations of La Motte. Like many of the more recent authors, he considered cellulitis a chronic disease, which, from its locality, was naturally dangerous, and that it was liable to

[1] Opera, Lib. i., p. 64. Pub. 1745.
[2] *Dissertation sur les Vapeurs*, etc., p. 219. Pub. 1759.
[3] *Dissert. sur les Vapeur*, etc., p. 219. Pub. 1759.
[4] *Traite des Accouchemens*, p. 356. Pub. 1759.

become more so if allowed to attain a large size and hardness, by which it was rendered incapable of being absorbed. He goes on to infer, that there were, according to his experience, peculiar symptoms, which characterised the commencement of these milky depositions, and certain remedies which had the power of checking them, and if they were properly used, they prevented the most painful abscesses, incurable fistulas, and even a fatal termination taking place. Those milky deposits, in his opinion, were almost always situated in the groin of either side, at the anterior superior spine of the ilium; at which point the matter collected under the skin and fat, or between the muscles and perineum. The larger collections were, however, situated in the *cellular tissue* of the peritoneum, in the broad ligaments, or in the ovaries. It was rare that those deposits were situated in the intestines. In their commencement, they presented no sign sensible to the view or the touch, by which they could be recognised; but they were announced by irregular spasms extending over the abdomen, which gradually became fixed in one spot. Those spasms were distinct from the natural after-pains, and were known by their producing no hardening of the uterus, nor increase in the flow of the lochial discharge. They were accompanied by loss of appetite, sleepless nights, paroxysms of fever, sometimes of the intermittent, sometimes continued type, which were preceded by rigors. It was rare for fluctuation to be observed before the tenth, twelfth, or fourteenth day; but it sometimes took place sooner. It is clear, from these observations, that although La Motte had an erroneous notion regarding the physiological and pathological condition of the female system in the puerperal state, he was well acquainted with cellulitis, and he has the merit of being the first to point out its precise locality. He has added much to the value of his remarks, by relating the history of several cases; in some of which, the disease was checked in its progress, and in others, the pus was evacuated by puncturing the hypogastrium.

The treatment which La Motte advised, was frequent bleeding, saline medicines, diuretics, diaphoretics, absorbents, and opiates. It is much to be regretted, that this eminent author's writings have been so little studied or attended to in more modern times; for had it been otherwise, cellulitis and its treatment would have been more generally known, by which much suffering might have been obviated, and our systematic authors on midwifery and the diseases of females would have escaped the blame of having neglected to treat of one of the most important and distressing diseases to which the female is liable. M. Levret[1] refers to this disease under the head of "Engorgemens Laiteux dans le Bassin." He believed that it rarely declared itself before the twelfth or fifteenth day after parturition; and that it was situated in the cellular substance attached to

[1] *L'Art des Accouchemens*, p. 168. Pub. 1761.

the peritoneum, the walls of the pelvis, in the tissue between the psoas and iliacus muscles, or in that of the broad ligaments, etc. He particularly alludes to the effect the disease produces in the leg, and states, that there is more pain when the limb is stretched out than when it is bent, which he attributes to the tumour pressing more when the leg is elongated. He therefore advises that there ought to be either a pillow or cushion placed under the thigh, which will give great comfort to the patient. The treatment which this author principally depended on was saline medicines and mineral waters, which he also recommended to be used tepid, as injections, when fistulas or sinuses had formed.

Astruc[1] enters fully into the consideration of abscesses connected with the womb, and he describes the symptoms with great minuteness. In conformity with his peculiar notions regarding the physiology and pathology of the uterine system, he divided those abscesses into two fanciful divisions or classes, which he called the simple and the cellular, sinuous or fistulous. Those were to be deemed simple, in which the pus was contained in one cavity; and the cellular were those in which it was collected in cells communicating with each other. He further distinguished those abscesses into the phlegmonic, which arose from inflammatory action, and the tuberculous, the consequence of the bursting of a tubercle. The former he designated the hot, the latter the cold opostem.[2]

The hot abscess was distinguished throughout its whole course by the acuteness of its symptoms. The cold opostem was slow in its progress, and generally commenced by swelling and tension of the uterus; and in many instances its symptoms were so mild, as to induce the patients to believe that the symptoms had left them; but gradually rigors came on, and were soon followed by symptoms of inflammation. Those abscesses were liable to burst into the uterus, the bladder, the rectum, or following the course of the round ligaments, the matter reached the surface at the groin or vulva. Sometimes they were effused into the cavity of the abdomen—these different terminations depending very much on the situation of the abscess.

The occurrence of these abscesses were always to be apprehended, in his opinion, when swelling remained in the region of the uterus, attended with dull pain, irregular paroxysms of slow fever, rigors, perspirations, and gradual emaciation. The diagnosis of the tuberculous abscess was rendered the more uncertain, from all its symptoms being less prominent in their character; and in consequence the only undoubted indication of its existence was the discharge of pus.

He considered that the great danger which was to be apprehended from all such abscesses, was the absorption of pus; the

[1] *Treatise on the Diseases of Females.* Translated from the French, vol. ii. p. 61. Lond. 1762.

[2] From the French, vol. ii., p. 61. London, 1762.

uncertainty as to which side they would burst, and from the chance of their bursting into the cavity of the abdomen, which was invariably fatal.

The treatment which this author recommended, was the strictly antiphlogistic, along with the use of injections, medicated pessaries, cataplasms, and fomentations. Should resolution not be effected by these means, then a free outlet should be made for the pus as soon as it became apparent. If the abscess pointed near the os uteri, or was felt through the walls of the vagina, it should be punctured by passing a bistoury along the finger, or through a speculum. But if the abscess were situated beyond the reach of the bistoury, then he advised a more questionable practice, which was to endeavour to burst the walls of the abscess by means of emetics, sternutatories, irritating clysters, and suppositaries.

Smellie is the first English practitioner who has reported a case of cellulitis; but in doing so he was obviously not aware that it was a disease to which women were liable, more especially in the puerperal state. He has not given a very minute account of the case, but it is interesting from being the first which is mentioned in this country, and from there being several symptoms not usually met with. It occurred in a patient who was delivered of her first child after a severe labour. Having been exposed to cold, this patient was seized on the third day after delivery with acute pain in the abdomen. Her pulse became low and rapid—a painful hard swelling soon formed above the pubis, and extended as high as the umbilicus on the left side. The lochial discharge was not suppressed, but it became very offensive. On the eight day diarrhœa came on, and returned occasionally, and seemed to relieve the pain, but it increased the weakness. She had no rigors, but Smellie suspected the formation of an abscess, and on the twenty-ninth day a discharge of pus took place from the navel. The patient made a good recovery.[1]

The celebrated Dr Hunter[2] is the next author who refers to this disease, which he does under the head of iliac abscess, in the following words—"Iliac abscess is said to be a deposition of milk on the part, but I don't think that the disease owes its existence to this cause, as I have seen it happen when women gave suck plentifully. After lying-in, often about the twelfth day, there is a great deal of pain in the groin, and about the hip, extending down the thigh and leg, attended with swelling of the part, with tenderness and fever, and sometimes an abscess under the psoas muscle, which generally drains the woman to death, though sometimes she recovers. Little can be done for them. If it does not come to suppuration, it gradually goes off. I have known them continue nine months. You must guard against cold, and apply the proper

[1] *Midwifery*, vol. iii., p. 444.
[2] *M.S. Lectures*, 1775.

remedies. Bleeding, fomentation, and an open belly are all I can recommend. Sometimes the disease will give a degree of tenderness for years afterwards."

It is clear from this description that Dr Hunter had very imperfect notions regarding this disease, and had little experience of its character.

Dr Denman[1] relates a most interesting case of cellulitis, which he considered an uncommon case of abscess, which occurred in a lady, soon after her delivery of a still-born child in the eighth month, and the forcible abstraction of the placenta. This lady was delivered on the 10th June 1798. For several days previous to her delivery, she suffered from pain and general uneasiness over the abdomen, for which she was bled, and took some cooling medicine. On the second day after her confinement she had a severe rigor, succeeded by pain in the left side, near the spine of the ilium, fever, and suppression of the milk, which was secreted at first. On the 5th day she had another rigor, with an increase of pain and fever, and she became unable to move her thigh, at the same time she became sensible of a deep swelling in her left side, although her medical attendants could not discover it. A blister was applied, and a few days afterwards her physician gave up his attendance, recommending her to go to the country, and he induced her to believe that, as her strength improved, her complaints would disappear. She was also advised to take as much exercise as she could, but every attempt to walk only increased her sufferings, and she daily became weaker. Denman saw her for the first time on the sixteenth day after her delivery, when he found an obvious fulness on the left side of the abdomen, which was very tender to the touch. He ordered her to have leeches applied every second day, and to take cooling aperient medicines. She derived some slight relief from these remedies; but as she was very weak, he was obliged to give her bark and other tonics, which, however, were not attended by any benefit, and her limb becoming wasted and contracted, he was therefore induced to call in Dr Baillie in consultation. On considering all the circumstances of the case, they came to the conclusion that an abscess was forming in the psoas muscle. She was in consequence put on small doses of cicuta in saline draughts, and a soft plaster with opium, was applied to the side. She returned to town after two months absence, without any improvement in her general health, while the local complaints were more distressing to her. The pain of her side became much increased, and having been put in a hot bath the day following, she was suddenly relieved by a profuse discharge of purulent matter and urine from the bladder. In the beginning of September following, a fluctuating swelling of considerable size appeared on the outside of the thigh, the swelling descending from the groin to the ham, and it varied in size accord-

[1] *Introduction to Midwifery*, vol. ii., p. 469.

ing to the position of the body. The nocturnal perspirations and hectic symptoms became extreme, and led to a second trial of bark and other tonics, but without any benefit, and for many weeks she took no medicines, except small doses of opium to allay pain, and some mild laxatives to regulate the bowels. She was allowed to take porter without restraint, and apparently with advantage. The pain continued very severe, however, and in the month of October she was obliged to confine herself entirely to bed. At this period Mr Cline was requested to see her for the purpose of opening the tumour in the thigh; but he did not think the operation was justifiable. At the end of the third month she was reduced to a state of extreme emaciation and weakness. When her appetite, which had never left her, began to improve, the tumour became less, and soon disappeared, along with the discharge of matter from the bladder. In the month of November she passed small quantities of blood from the bowel, after which her health and strength began to improve, and she gradually became able to use her leg, and her catamenia returned. She became pregnant in the month of January, and was safely delivered at the full period of gestation, soon after which she was entirely restored to health, leaving no trace of her long sufferings.[1]

I have been induced to give this long abstract of this case, because it is not only interesting in itself, but it lays before us the practice in cellulitis of some of the most eminent physicians in the end of the last, and beginning of the present century.

Dr John Clark,[2] in treating of puerperal fever, states that he has observed the ovary distended with inflammation and pus, so as to equal in size a pigeon's egg; but he makes no reference to any other form of puerperal abscess.

Sir Charles Clarke[3] relates several cases of abscess of the uterus, which are deserving of notice, from the peculiarity of their symptoms, which led him to suppose that the pus was the result of inflammation of the lining membrane of the organ, and that it was retained in the cavity by the adhesion of the os, by the secretion of tough mucus, which filled the cervix, as in pregnancy, or by the preternatural contraction of the cervix itself. He was confirmed in this opinion by the examination of a fatal case of abscess which occurred in a lady sixty-five years of age; between 7 and 8 ounces of pus was found in the cavity, and retained by the contraction of the cervix. The walls of the organ had a dark colour, and the internal surface had a honeycomb appearance. The small intestines showed strong marks of inflammation, and, on being raised, a tumour was found in a gangrenous state, and when it was pressed, a quantity of offensive matter flowed from an opening on the upper surface.

[1] *Introduction to Midwifery*, vol. ii., p. 469.

[2] *Essays on Puerperal Fever*. Selected by Churchill for the Sydenham Society, p. 397.

[3] *Diseases of Females*, p. 153, 156-9, and 161.

The next case was of a less complicated character. It occurred in a lady, aged forty, who was seized with symptoms of inflammation of the uterus, six weeks after her marriage. She had inability to pass urine, and to evacuate her bowels. On examination, per vaginam, the uterus was found much enlarged, and quite filled the pelvis, and was felt above the pubis. She was treated with sedative injections, repeated doses of opium and warm baths, but without the effect of preventing suppuration, as in sitting at stool the tumour suddenly burst, and a large quantity of pus was discharged from the rectum, and continued to flow for some time. The uterus returned to its natural size, and the patient gradually regained considerable vigour.

While the former case was of a complicated character, and the result of the examination proved that there was a collection of pus in the uterus, this was one of a very different description, and was obviously a case of cellulitis, which ran its course, and burst into the rectum. It is probable that what was taken for the enlarged uterus, was the abscess itself, which had displaced the uterus, and as the pus was discharged, this organ had gradually returned to its natural position. It is clear that Sir Charles was ignorant of the disease under discussion, otherwise he would not have recommended that a male catheter should be introduced into the uterus in such cases as this, with the view of relieving the patient; nor would he have made use of the expression, that by such "a mode of proceeding no harm can be done, and an opportunity may be given to the patient to be quickly freed from the disease."

Dr Seymour[1] relates several cases in which pus was secreted within the pelvis. In one case, in which inflammation in the abdomen proved fatal three days after delivery, the cellular membrane under the peritoneum covering the uterus, and that lining the pelvis, were in a state of diffuse suppuration, and the absorbents were loaded with pus. The ovaries were softened, and had the appearance of a vascular pulp, but there was no purulent matter in them.

Dr Seymour informs us that "abscess of the ovarium does indeed appear to be a rare disease, but it nevertheless occurs, and, indeed, in reasoning on the subject, it would not be easy to account for the difficulty or impossibility of inflammation and its result, suppuration occurring in the loose cellular texture of this organ." It will not therefore be uninteresting to refer briefly to a case of this disease, which he reports. It occurred in an emaciated girl of the lowest grade of society, aged seventeen, who was admitted to Guy's Hospital. She had a quick feeble pulse, shining red tongue, constant watchfulness, violent diarrhœa, and vomiting, suppression of the catamenia. After being in the hospital for some months, she suddenly complained of pain extending over the abdomen, and in a

[1] *Illustrations of some of the Principal Diseases of the Ovaria.* Pub. in 1830.

few hours expired. On dissection, a large quantity of pus was found effused from an abscess in the substance of the ovary into the peritoneal cavity.

Dr Tweedie[1] refers to a case of abscess of the ovary which came under his care. The abscess was the size of an orange, and attended by uncontrollable vomiting and sympathetic fever.

M. Dance,[2] in treating of abces iliaque à la suite des couches, states, that it is of frequent occurrence after parturition, and that it bears a strong resemblance to the "abces de la fosse iliaque droite," which he takes the merit of having first described in the *Report d'Anat. et de Phys.* 1828, and which was afterwards noticed by Dupuytren. Iliac abscess, he supposes, develops itself in the broad ligaments, or more extensively in the iliac fossa along the crural arch, from the groin to the superior spine of the ilium, and more frequently on the right side than the left. This circumstance, he considered, was owing to the inclination of the uterus during pregnancy. He observed that this form of abscess appeared soon after parturition, and its symptoms were very obscure. The pain which attends it may be ascribed to inflammation of the uterus, of the peritoneum, or of the cellular substance external to those organs. At the same time he considered that the effect on the pulse was not so great as in metritis or peritonitis. If the disease is not checked suppuration will take place, and the pus will make a passage for itself in the vicinity of the crural arch or into the uterus, in which case it will prove fatal. The treatment ought to be strictly antiphlogistic.

This is a distinct description of cellulitis, although the author seems to have had very imperfect and erroneous notions as to the true character of the disease; and while he had the desire of being considered a discoverer, he was apparently ignorant of the observations of preceding authors, otherwise he would have been aware that much of what he supposed he had discovered had been previously described by Puzos.

Grisolle[3] has published a series of papers on the subject "Des Tumeurs Phlegmoneuses des Fosses Iliaques," in which he makes frequent reference to cellulitis, but he throws little light on the subject. He reports seventy-three cases of abscess, of which only twelve came under his own observation. Of these cases, seventeen occurred in females after parturition; and of these six were situated on the right side and eleven on the left. He was opposed to the opinion that abscesses were occasioned on the left side by the inclination of the uterus to the right during pregnancy, producing a dragging of the uterine appendages towards that side. He asserted that abscess

[1] *Cyclopædia of Practical Medicine*, vol. i., p. 19.

[2] *Dictionnaire de Medicine*, 1832, vol. i., p. 238.

[3] *Archives Generales de Médecine*, Third Series, Tom. iv. Paris, 1839. P. 34, 137, 293.

was more common in primiparæ, because he found that seven out of nine cases which came under his observation were in that class of patients; and this circumstance, he thought, might be accounted for by first labours being more tedious and painful. This opinion, however, is not borne out by more recent experience, as the majority of cases of cellulitis have been found to occur after natural and easy labours.

Dr Cook,[1] of Gainsborough, relates a case of abscess, which is worthy of notice, from the complications discovered on dissection. The patient was at first seized with peritonitis, the more severe symptoms of which were removed by treatment, but a deep-seated pain remained in both groins, unattended by any apparent swelling. This pain came on in paroxysms, and generally subsided after a discharge of pus from the rectum. The patient suffered in this way for twelve months, when a fatal termination took place.

On examination after death, the ilium was found adhering to the peritoneal lining of the pelvis. The ovaries were converted into a sort of yellow fatty matter, in which there were cysts containing pus. The right ovary adhered to the cœcum, and there was a communication between it and the ilio-cœcal valve, sufficiently large to admit a finger, and giving free issue to the pus; none of the cysts in the left ovary had burst.

Mr Wainright[2] read to the Liverpool Medical Association a paper on abscess of the pelvis after parturition, of which he describes eight cases; in some of which pus was discharged at the groin, and in others it burst into the vagina and bladder, and in one into the uterus, which proved fatal. Several of the patients made good recoveries, and bore children after without any return of the disease. This author considers that cellulitis is intimately connected with the puerperal state, and that it is situated in the cellular membrane of the pelvis. In his opinion, there are two forms of the disease; in the one it commences in the cellular membrane, and in the other it takes place in the uterus and its appendages, from which it extends to the cellular texture.

Dr Christison describes a case of abscess which occurred in one of the nurses in St Bartholomew's Hospital, when he was a student there. He informs us, that "after a fit of chilliness and sickness, she was seized with acute pain in the lower belly, stretching upwards, attended with some fulness and extreme tenderness. There was also a tendency to retching, anxiety of expression, crooking of the legs on the belly, some strangury, and a frequent small wiry pulse." She was treated by bleeding, and large doses of laudanum, and in a few days she was so well as to be able to resume her duties; but in six weeks after, she had a return of the above symptoms, which soon proved fatal. On examination after death, an

[1] *London Medical Gazette*, vol. xxv., p. 625, 1839.
[2] *London Medical Gazette*, vol. xxv., p. 794, 1840.

abscess the size of the fist, was found between the rectum and uterus, containing several ounces of fœtid pus. The walls of the sac were very thick, tough, and fibrous.[1]

Although this was considered a case of peritonitis, and treated according to the practice then much in vogue, it was clearly a case of cellulitis from the commencement; and the peritonitis which accompanied it, and seemed to be the immediate cause of death, was merely one of those exacerbations in the symptoms, which are liable to occur from time to time in this disease, when the matter is long retained, a circumstance which was fully accounted for by the state of the sac.

M. Malespine and Briquet[2] have reported a series of cases of abscess of the appendix vermiformis; some of which were the result of foreign bodies having been taken into the alimentary canal; others arose apparently from natural causes. In one of the latter cases, there was a striking example of the effect of constipation in producing cellulitis; and it also gives an additional proof of this disease not always being situated in the pelvis.

Dr Charlton[3] describes two cases of cellulitis under the name of "abscess of the iliac fossa." In one case recovery took place after the pus was evacuated, by making an incision above Poupart's ligament. The other proved fatal, after implicating several of the abdominal organs in its morbid action. This case will be more particularly noticed in a subsequent part of this paper.

Under the name of chronic hypogastric abscess, Professor Miller[4] relates a deeply interesting case of cellulitis, which is remarkable, not only from the early age of the patient, but as giving a further proof of constipation being a common cause of the disease. I shall therefore give a brief abstract of the case. It occurred in a girl of fourteen years of age, who, although of a sallow and unhealthy complexion, seldom complained of being ill. She was naturally of a costive habit, and she frequently allowed her bowels to be several days without being opened. Having been previously subject to stitches in her side, she was suddenly seized, on the 10th January 1841, with abdominal pain. She was treated with calomel and opium, and local bleeding, which gave great relief; and after a profuse discharge of dark, hard, feculent matter, she seemed to be quite convalescent. On the 16th, however, when changing her position in bed, all the symptoms of peritonitis suddenly returned, and she fell into a state of collapse, and soon died. On examination after death, two pounds of sero-purulent fluid were found effused into the cavity of the abdomen. The peritoneum was coated with lymph, which glued the folds of the intestines together.

[1] *Edinburgh Monthly Medical Journal*, February 1841.

[2] *Edinburgh Monthly Medical Journal*, April 1841.

[3] *Abscess of the Iliac Fossa, with Remarks.* Published 1841.

[4] *Case of Chronic Hypogastric Abscess, causing Fatal Peritonitis: with Remarks.* By James Miller, F.R.C.S.E. Published 1840.

There was a large abscess at the upper part of the pelvic cavity, full of pus, and the walls of the sac were lined with organized lymph. The rectum was much thickened, but the other viscera were healthy.

We now arrive at that period in the history of cellulitis, when it was raised from the obscurity and neglect which it had previously experienced, and was brought prominently before the profession in this country as a distinct disease, and was placed in a position in nosology, which its deep importance so well entitles it to hold. This was effected, in a great measure, by Dr Doherty's excellent paper on Chronic Inflammation of the Appendages of the Uterus after Parturition.[1] This paper had the immediate effect of directing the attention of accoucheurs to the disease, and the result has been the publication of several valuable papers on the subject. When we consider the many excellent descriptions of this disease referred to above, it is less remarkable that it should now attract so much attention, than that it should have remained so long unnoticed by the many eminent physicians and accoucheurs who have devoted themselves to the study of female complaints.

Dr Doherty seems to consider cellulitis as a chronic disease, consequent on parturition, and that the following is its course;—"The patient has probably had an easy labour, and her progress has been so favourable, that we have ceased our attendance; or, if an hospital patient, she has been dismissed on the usual day, free from complaint. Convalescence proceeds uninterruptedly for some days or even weeks, but after exposure to cold or some local source of irritation, she is seized with shivering, succeeded by hot skin and quick pulse, and a dull weight in the pelvis. After a few hours the feverishness disappears, and, although some uneasiness still remains about the lower part of the abdomen, it gives rise to no apprehension for some time. Febrile paroxysms, however, recur at intervals, and, at length becoming more frequent, a stiffness and pain being felt on moving the leg of the affected side, she again applies for advice. We then find her pulse permanently accelerated, but soft—generally about 100 in the minute. Her tongue foul—she complains of frequent rigors, returning perhaps, at the same time every day; she states that when rising in the morning, she is bathed in perspiration—that her health is declining, and she is unable to move one or both legs without pain and difficulty. She probably complains at the same time of frequent desire to make water, and sometimes a tendency to diarrhœa. "*Such are the symptoms which will be detailed by an intelligent patient, but it should be remembered that the affection I speak of may exist for a long time, producing but little inconvenience, so that from many persons labouring under the malady, I have been unable to extract any history of its approach.*" "When closely questioned, however, she points to one (more seldom both) iliac fossa, as

[1] *Dublin Medical Journal*, vol. xxii. Published in 1842.

a source of uneasiness, and on placing our hand there, we perceive an unnatural fulness, sensitive to pressure. On making more accurate examination, we are surprised to find the whole of the iliac region, particularly towards Poupart's ligament, of a brawny hardness, with or without a prominent and more defined swelling rather higher up, which, when it exists, is tender to the touch. The question then arises—What is the disease we have to treat?"

This is a question we should now have no difficulty in answering, for although the description is most defective in the view it gives of the commencement of the disease, and represents the symptoms only after they have assumed a subacute type, which is not unusual, especially in dispensary patients, still sufficient information is afforded to enable us at once to declare the true character of the disease. It is evident that this author has trusted more to the naturally defective account of his patients, than to his own observation, for his information regarding the commencement and early progress of this disease, otherwise he would not have stated that he had "been unable to extract any history of its approach." It is remarkable that a person of Dr Doherty's observation should have overlooked, in his description of this disease, the fact, that the symptoms of female ailments are very insidious and obscure, and were the accoucheur to depend entirely on the patient's own account of her symptoms, he would frequently be most seriously misled as to her true condition. This is a circumstance which is particularly worthy of attention during the puerperal state, when the most minute investigation is often necessary to enable us to ascertain whether or not inflammatory action is going on. It is not unusual for the accoucheur to be informed at that time that his patient is doing well, and has no pain; yet, when he applies his hand to the abdomen, she complains of great tenderness on pressure, and if he carries his inquiries further, he discovers that some important premonitory symptoms of serious disease have been concealed from him, either intentionally or through ignorance of the propriety of his being made aware of them, when they occurred.

Dr Churchill[1] is the next author who treats of this disease, which he designates "Abscess of the uterine appendages," from the difficulty of ascertaining whether or not it is situated in the ovaries, or the broad ligaments. After making some remarks on the frequency of the disease, he states that it is probable that the continued delicacy of some females, after parturition, is owing to it, and the true cause of their weakness remains unknown, from the obscurity of its symptoms. He relates a series of twenty-three cases, which illustrate the character of the disease very clearly; and he has arranged those cases into three classes, according to what he considers the different forms the disease may assume. The first class contains those cases unconnected with pregnancy; the second,

[1] *Dublin Medical Journal*, 1843.

those which occur shortly after parturition; the third, those that are chronic in their character and progress. The practical conclusions which Dr Churchill draws from those different cases is, that this disease may be either acute or chronic in its nature; the latter form of the disease being rarely unconnected with pregnancy, and that in general it appears between the third and tenth day after delivery; but in some instances it does not occur for weeks, or even years, after that event. He makes the singular assertion, that the abscess which is unconnected with pregnancy is attended with less suffering. This appears to me a very erroneous opinion, and it is completely opposed to my experience.

Professor Simpson,[1] when treating of the uterine sound, incidently refers to two cases of cellulitis, without, however, giving any particulars of their history. The first case occurred in a patient who consulted him about what appeared a uterine ailment; but, on examination, he discovered an abscess situated between the rectum and vagina, which he punctured successfully. In the other case, the abscess was not discovered until after death. In a subsequent paper,[2] this author mentions four cases of fistula, all of which appeared the result of cellulitis. Those cases are important, as showing the bad consequences which may arise when this disease is allowed to run its course unchecked; but this author has added nothing to our information with regard to the symptoms and character of the disease, while he seems desirous to claim the merit of having first pointed out that this disease is liable to form "several species of deep pelvic fistulæ"—a discovery founded apparently on the above cases; but Puzos and Levret distinctly refer to the liability of the disease to form "des fistules souvent incurables,"[3] and that the former author reports a case illustrative of the fact.[4]

Dr Lever treats of cellulitis under the name of "pelvic inflammation with abscess, occurring after delivery."[5] He advocates the opinion of its being a chronic disease, which occurs sufficiently often to attract the utmost attention of the accoucheur; but it is very remarkable, that the cases which he reports, and on which this opinion seems founded, do not justify such a conclusion, as they are neither chronic in their symptoms nor duration. But of this subject we shall say more in a subsequent part of this paper.

M. Marchal (De Calvi), has published a very elaborate treatise

[1] *London and Edinburgh Monthly Medical Journal.* Nov. 1843.

[2] *Op. Cit.* December 1852.

[3] *Traité des Accoucheres*, p. 357.

[4] "Une Dame de Province, venue à Paris, pour consulter, assembla chez elle M. Petit, Boudou, et moi. Nous lui trouvâmes un trou fistuleux au-dessus du pubis, un peu latéralement; la sonde entroit si avant, qu'elle paroissoit se perdre dans l'hypogastre. Cette fistule etait la suite d'un abscès laiteux ouvert depuis plus d'un an, et qu'on n'avoit jamais pú cicatriser, quoiqu'on y eût travailé à différentes reprises." P. 365.

[5] Guy's Hospital Reports, 1844.

on this subject, under the name of "Abcès Phlegmoneux Intra-pelviens," in which he divides the subject into two distinct parts, viz.: "Abcès phlegmoneux intra-pelviens chez la femme;" and "Abces phlegmoneux pelviens chez l'homme." While in giving its history, he correctly considers it is the same disease in both sexes, he neglects to distinguish the peculiarities which characterise it in each; and to show, that while in the male it is usually the result of foreign bodies having been taken into the alimentary canal, as indigestible food, or stones of fruit, etc.;[1] in the female, it is more frequently occasioned by what may be called natural causes. He seems to have drawn his information principally from many of the French authors, to whom reference has already been made in this paper; but he also quotes others, whose writings are little known in this country, a circumstance, however, of little moment, as they have added no original information in regard to the disease. In the course of his treatise, he reports fifty cases of the disease, but of these only a small portion came under his own observation, the others were previously published by other authors. He seems thoroughly to have understood the character of cellulitis, and he has given much important information on the subject.

Dr Joseph Bell[2] has published an excellent paper, which he read to the Glasgow Medical Chirurgical Society, in which he treats of cellulitis, under the name "Pelvic inflammation ending in abscess." Like Marchal, he alludes to the very unsatisfactory manner in which the disease has been described by previous authors; he then relates a series of cases which he treated successfully by the antiphlogistic means; and he concludes his paper with some judicious observations, in the course of which he expresses his opinion that this is a phlegmonous inflammation affecting the areolar tissue of the uterus, of its appendages, or of the pelvic walls, subsequently involving, in many instances, the other viscera of the pelvis and abdominal cavity.

Dr Holden[3] has reported several cases of cellulitis, which are remarkable from the quantity of pus discharged after the abscesses were opened. In one there were eight ounces; in a second there were twenty; in a third two pints; and a fourth, which occurred in a lady sixty years of age, there was also two pints. Yet all the patients recovered.

M. Comperat[4] has related a very distressing case, in which the abscess was punctured from the rectum by means of a pair of long sharp scissors. After much unnecessary suffering, arising from the rude and unfeeling treatment of M. Recamie, who operated on the occasion, this unfortunate patient made a wonderful recovery.

[1] Inflammation of the Cœcum, etc. By Dr John Burns. Published in the *Medical and Surgical Transactions*, vol. xx.

[2] *Medical Gazette*, vol. xxxvi. Pub. 1846.

[3] *Medical Gazette*, vol. xxxviii. Pub. 1846.

[4] *Northern Journal of Medical Science.* July 1846.

M. Holeman[1] describes a case of abscess in the right iliac region, which, after running its course with the usual symptoms of cellulitis, burst at a little distance from the anterior superior spinous process of the ilium. The patient made a good recovery.

Dr Priestley treats of cellulitis under the title of pelvic abscess."[2] The principal object of his excellent paper, however, seems to be less for the purpose of describing the disease, than to illustrate the anatomy of the pelvic fascia, of which he gives a very minute account, under the impression that it is only by having a thorough knowledge of this structure, that the practitioner can possibly understand the pathology and precise situation of cellulitis. In the course of his paper, he relates several cases of inflammatory tumours, apparently situated in the pelvis, but only one of these terminated in suppuration; and, it was remarkable, as showing, on dissection, that the abscess was not in the pelvis, but in the cavity of the abdomen.

The most recent information on the subject of cellulitis, which I have met with, is contained in a series of cases reported under the head of "Pelvic abscess after parturition."[3] It is very remarkable, however, that although those cases were treated by some of the most eminent surgeons in London, they were completely misunderstood, and their true character was not discovered until the formation of pus had unquestionably declared itself. In the one case the woman was supposed to be suffering from disease of the hip-joint; in another, that there was a cancerous growth.

Having traced cellulitis under its various designations, from the period when it first attracted the attention of physicians, and having referred to the writings and opinions of a great part, if not of all, of the most eminent authors, who have treated of this subject, we shall, in our next paper, proceed to the consideration of the disease as it is generally met with in practice. It requires little investigation to enable us to discover that this disease has hitherto been very imperfectly understood, and that the profession in general has yet much to learn in regard to its character and situation.

On entering on this investigation, our attention is naturally attracted first to the name of the disease, and, judging from the abstracts already given, this appears by no means a settled point either here or on the continent. In this country, it has been most commonly called pelvic abscess, but this is a questionable designation, as the disease is rarely found in the true pelvis at its commencement, and it does not always terminate in the formation of pus; in proof of which many cases have been mentioned by Puzos, Doherty, M. Marchal, and others. Of the various terms under which cellulitis has been described, that of "Phlegmon des Fosses Iliaque," employed by M. Grisolle, is the least objectionable;

[1] *London Medical Gazette*, vol. xl., p. 49. Pub. 1847.
[2] *Edinburgh Monthly Journal of Medical Science.* May and June 1854.
[3] *The London Medical Gazette.* August 1855.

but as the tumour is not always situated in the iliac fossa, nor even attached to the ilium, the general term of abdominal cellulitis appears the more appropriate designation, as being sufficiently distinctive of the disease, yet not liable to lead to error in diagnoses by attempting to define it too minutely.

Cellulitis has been described by many authors as a chronic abscess consequent upon parturition, and this opinion has been blindly adopted by the profession in general; but experience proves that, in the majority of instances, it is not chronic in its character, and that it is not always the result of pregnancy. Indeed, it is very questionable if it be a chronic disease in the common acceptation of the term, and according to the signification of it laid down by our highest authorities. Mr Abernethy[1] states, that "Chronic abscesses differ from those produced by phlegmonoid inflammation in many particulars. In diseases of an active and violent nature, the contiguous parts become affected, whilst in those of an indolent disposition they remain free from disease and unaltered in structure." Again, "In chronic abscesses it generally happens that very little adhesion of the surrounding substance takes place, and the matter is more at liberty to extend itself in all directions; at the same time, the parts covering it do not participate in the disease, they therefore do not inflame and ulcerate until their distension induces them to do so, and such a degree of distension may not take place till the abscess has acquired an enormous magnitude." Mr Syme,[2] whose opinion deservedly stands very high on all surgical questions, says, "Abscesses are said to be chronic or cold when the symptoms of inflammation which precede them are mild or not at all observable. In such cases, the collection generally forms slowly and insidiously, so as not to attract attention until it attains a large size. Owing to the want of action that attends its origin, there is little effusion of lymph, and, consequently, little resistance to the extension of matter, whence the swelling is often of an irregular figure, and readily changes its place according to the tendency of gravity." This is obviously not the character which can be assigned as distinguishing cellulitis. So far from this disease being a "consequence of a disordered state of the constitution,"[3] which Abernethy informs us chronic abscess is, it is generally met with in those who have had an easy labour, and been able to dispense with the attendance of the accoucheur, or who leave the hospital, at the usual period after parturition.[4] And, in place of there being little effusion of lymph, and little resistance to the extension of the matter, whence the swelling readily changes its place, which, in Mr Syme's opinion characterises the chronic abscess, the most striking peculiarities of this disease are the fixed and hard condition of the tumour, and the extensive and fre-

[1] *Surgical and Pathological Works*, vol. ii., p. 132-3
[2] *Principles of Surgery*, vol. i., p. 80.
[3] *Op. Cit.*, p. 139.
[4] Doherty's paper.

quent participation of the neighbouring organs in the inflammatory action, by which they become united and matted together, and in some instances completely disorganized. As I consider that it is of deep importance that this point should be clearly established, I shall refer to a few dissections which fully examplify the opinion I have adopted.

In a case treated by Mr Guthrie,[1] which proved fatal after a lingering course, the sigmoid flexure of colon, the rectum, uterus, and bladder were matted together by old adhesions; the lower part of the colon was adhering to the iliac fossa. The abscesses were confined to the left side, and there were sinuses burrowing in the lumbar region. The lower false ribs were denuded of their periosteum. Dr Charlton relates a case which resisted every treatment. On dissection, there was found only slight traces of disease in the chest, although the patient had died apparently hectic. On the summit of the lungs, there was a cavity the size of a filbert, containing a grumous fluid, and the bronchi were redder than natural. The liver was enlarged and bloodless, having a tendency to the nutmeg character, and imparted a greasy appearance to the knife. There was a large fluctuating tumour under the fascia iliaca, to which the cœcum was adhering; and on attempting to separate it, a large quantity of greenish white pus escaped; there was a communication the size of a crow-quill between the cœcum and the abscess. The cœcum and colon were inflamed. The anterior crural and lumber nerves were embedded in the abscess, and completely disorganised.[2] Bourdon[3] relates the following case, which proved fatal after the abscess was opened. On examination after death, the intestines were found matted together, and adhering to the neighbouring organs and to the walls of the abdomen, by false membranes. The peritoneum was nearly entirely of a slate colour, and the subserous cellular tissue was injected. In the peritoneal cavity there was a greyish sero-purulent fluid, having floculi-like portions of false membrane floating in it. There were numerous small abscesses between the intestines, one of which was the size of an egg, and perforated the diaphragm, and communicated with the thorax; another, the same size, was situated in the cul de sac, between the rectum and vagina, and opened into the rectum. The tumour into which the incision had been made during life, was situated in the left broad ligament, and was as large as a medium sized apple, and contained several spoonfuls of pus. It formed adhesions with the uterus, which was much inclined to the right side, with the recto-vaginal tumour, with the ovary and Fallopian tube, which formed its inferior wall, and with the abdominal walls above.

In the eleventh case described by M. Marchal we have the following description of the appearance, on examination of the abdomen after death:—

[1] *London Medical Gazette*, xxx.
[2] *Edinburgh Monthly Medical Journal*. p. 329. 1841.
[3] *M. Marshal's Op. Cit.*, p. 70.

"A l'ouverture du cadavre on trouva la matrice parfaitement saine, et réduite à son volume ordinaire; mais il y avait à la partie droite inférieure du bas-ventre une tumeur de forme irrégulièrement sphérique, remplissant presque tout l'espace entre les os des îles et le pubis. Cette tumeur était composée des membranes de l'omentum et du péritoine, et de différentes parties des intestins qui paraissaient avoir été attirées comme par force dans cet endroit de sorte que la partie du colon qui aurait dû être située sous le ventricule, formant un angle extrèmement aigu, était descendue jusqu'à la tumeur, et y avait contracté une adhérence. Toutes ces parties étaient tellement collées les unes aux autres, qu'on ne pouvait les séparer qu'en les déchirant. Les différentes cellules qui formaient la tumeur étaient pleines de pus contenu dans des membranes durcies et épaissies, mais qui avaient souffert en quelques endroits une corrosion telle, qu'en peu de temps les muscles du bas-ventre ou les intestins auraient été percés. Ces cellules ne communiquaient pas entre elles. Au milieu de la tumeur on remarquait une tumeur particulière, de la grosseur d'un œuf de pigeon, formée par l'ovaire, considerablement durci et augmenté dans son volume, contenant aussi du pus."—P. 28.

Were it necessary, many other cases might be added of a similar character, but I have given enough to prove the correctness of the opinion that cellulitis is an active disease, and of dangerous tendency, and to point out the error of considering that it is a chronic disease, which, if acted upon, must lead to serious and fatal mistakes in practice. We cannot, therefore, be too careful in forming our diagnosis.

Cellulitis, or as one author calls it, a "genuine phlegmonous inflammation of the cellular tissue," unconnected with visceral disease, might be asserted, with few exceptions, to occur only in the female sex,[1] and it is a disease to which all females are liable, both in the single and married state, from the age of puberty until an advanced period of life—as appears from the cases reported by Professor Miller, whose patient was only fourteen; and by Dr Holden, one of whose patients was sixty years of age. But it is more commonly met with in early life, and immediately after parturition, especially in primiparæ, than at any other period, or in those who have had many children. Dr Churchill is in error, however, in supposing that it is less painful when unconnected with pregnancy, and there is no satisfactory evidence that it is in any degree milder in its symptoms and results in the unmarried than the married state; and it would be difficult to assign any reason for it being so. M. Marchal considers that the liability to its attacks diminishes in proportion as the number of children increase, and from the eighteenth to the fortieth year of age, and he illustrates his opinion by the two following tables:—

[1] A Series of Cases of Abdominal Tumours. *London Medical Gazette.* 12th August, 1854.

TABLE ACCORDING TO THE NUMBER OF CHILDREN IN 21 CASES.

Primipares, ...	13
Bipares, ...	3
Sextipares, ...	4
Septipares, ...	1
	21

TABLE ACCORDING TO AGE IN 26 CASES.

From 18 to 25 years, ...	15
„ 26 „ 30 „	7
„ 31 „ 40 „	4
	26

The period at which cellulitis may occur after parturition is very variable. In some individuals it appears immediately after delivery; in others it does not take place for months, or, according to Dr Churchill,[1] for two years after labour—in which case it is very doubtful if it is in any way dependent on the previous pregnancy. It appears most usually, however, between the third and tenth day after parturition—corresponding, in this respect with the other important inflammatory peurperal diseases, from which it is very difficult to distinguish it in its commencement. But as it advances, its symptoms become more distinctly characteristic of the disease, and are readily discovered by the experienced accoucheur.

Although the symptoms and character of this disease are the same in the married as in the single, yet it frequently arises from very different causes in each of these conditions. In the married state, it seems in general to be occasioned by exposure to cold soon after parturition; but, if we were to inquire minutely into the circumstances of the case, we should probably find that this cause is more apparent than real, and that there is strong reason to believe, that the disease is the result of pressure, arising from constipation, or from the womb itself, during pregnancy. This opinion is fully supported by the numerous cases preceded or attended by constipation, which have been reported, as well as by the fact already referred to, that cellulitis is more common in the primipara, in whom the muscles of the abdomen have a less tendency to yield to the enlarged uterus. But the effect of constipation is not confined to the parturient state only; it is also observed in the single state, and is strongly illustrated in the cases related by Professor Miller and Dr John Burns. In the unmarried state, however, cellulitis is in general more distinctly the consequence of mechanical injuries arising from bruises,[2] falls, blows,[3] and operations on the uterine organs, especially the hazardous, and often rashly performed operation of slitting open the os and cervix uteri. It resembles in this respect

[1] *Op. Cit.*, Case 1st.
[2] *Medical and Surgical Transactions*, vol. xx., p. 216.
[3] Marchal, Churchill, and Leven, *Op. Cit.*

typhlitis, which, according to Dr Burns,[1] arises from some local irritation taking effect when the patient is in robust health.

It therefore appears, that cellulitis, in place of always being a primary disease, the result of cold or fright,[2] is frequently, in reality, secondary disease called into action by some mechanical exciting cause; and that from its deep-seated situation, and the peculiar delicacy and excitable nature of the surrounding parts, is often obscure in its origin, and virulent in its character. We must therefore be cautious in forming our prognosis; although, judging from the result of the numerous cases which have been reported, it may in general be favourable, as in the majority of cases the patient has been restored to health.

In consequence of the incidental or contingent diseases, but more particularly peritonitis, which often accompany cellulitis, its symptoms in its commencement are usually complicated and obscure, rendering it very difficult to form a distinct diagnosis; but this is of less importance at this period, as the same treatment is applicable in the beginning of all inflammatory puerperal diseases. As the disease advances, however, certain symptoms assume a more prominent and permanent character, and may almost be considered as pathognomonic of the disease; but in order to acquire a thorough knowledge of those peculiarities, it is necessary to examine, in many cases, both by the vagina and rectum, as well as by a careful manipulation of the surface of the abdomen. Dr Stokes, in treating of peritonitis,[3] has pointed out the importance of this kind of examination. Sometimes, from the thickness of the parietes of the abdomen, and the deep situation of the inflammation, the pain from common pressure is scarcely perceptible; in such cases, M. Broussais advises lateral pressure.[4] Had this mode of investigation been more generally adopted and carefully practised, we should have had fewer complaints of the difficulty of discovering the early existence and progress of an attack of cellulitis. Until after the ninth day after delivery, the accoucheur should not rest satisfied with the mere statement of the patient in regard to her symptoms, especially if there is reason to suspect any inflammatory action; but he should examine carefully the state of the abdomen, by pressure with his hand, while he is occupying her attention by inquiring into her case, at the same time watching the expression of her countenance, which will often give indication of pain, the existence of which might otherwise escape observation, until the disease had obtained a serious hold on the system.

[1] *Op. Cit.*

[2] Churchill, *Op. Cit.*

[3] The *Cyclopædia of Practical Medicine*, vol. iii., p. 293.

[4] "Elle (douleur) était plus difficile à supporter quand on la faisant (pression) latéralement en la dirigeant vers le centre. Ce signe est un des meilleurs pour faire découvrir les péritonites obscures."—*Histoire des Phlegmasies*, vol. ii., p. 492.

Another peculiarity of cellulitis, which tends still further to support the view entertained in this paper in regard to its cause, is its frequent occurrence after natural and easy labour. Early in its progress, it often resembles an aggravated form of after-pains, for which it may be mistaken, both by the patient and by the accoucheur, unless he shall adopt the mode of investigation above referred to. The spasms at first may extend over the whole abdomen, and gradually concentrate, until at last they are fixed in one place, generally in the iliac fossa of either side, seldom affecting both sides at one time. The lochia are not always suppressed, neither is the secretion of milk permanently interrupted, as it sometimes returns, and the patient is enabled to suckle her infant after the disease is subdued.[1] It is not always preceded by rigors, nor do they occur early, unless the peritoneum sympathises extensively in the inflammatory action; but they invariably come on at a more advanced period of the disease, when they usually indicate the formation of pus. They return more or less frequently, and are followed by feverishness and profuse perspirations, which come on, especially during the night. Foul tongue, rapid pulse, ranging from 100 to 120, sickness, occasionally constipation, but frequently diarrhœa,[2] apparently arising from the irritation produced by the tumour. There is also great difficulty in passing urine, sometimes amounting to complete ischuria, with the most anxious desire to have the bladder emptied. This symptom seems to arise from the displacement of the bladder, a condition which is well illustrated by the first case, subsequently reported, in which the bladder was raised up, and the urethra elongated, and there was entire suppression of urine. As the disease advances, the limb of the affected side becomes stiff and so bent on itself that the patient cannot stand straight or walk without great pain. That may be accounted for by the pressure of the tumour on the crural nerves, which are sometimes also embedded in the abscess.[3] Although the tumour is not invariably situated in the iliac fossa, it is most generally met with there; but wherever it is situated, it always conveys a peculiar brawny hardness to the touch, and it is often long of being dispersed after the

[1] *Vide* Churchill's eleventh case; also the second case, afterwards described.

[2] In a case that I was requested to see some time ago, this irritable state of the bowels had continued for a long period, returning at intervals, and inducing the medical attendant to believe that the patient was suffering from chronic dysentery, for which he treated her. She was reduced to an extreme degree of weakness, and was considered to be in a hopeless state. I found that she had cellulitis, and the abscess burst into the vagina, which was reduced to one-half its natural dimensions, and the uterus was so low, that the cervix nearly protruded from the vulva. By tonic treatment and nourishing diet, she recovered her strength, and was enabled to leave town in the course of a few weeks, although pus was still discharged in considerable quantity from the vagina. Notwithstanding the diarrhœa, this patient's bowels were a good deal loaded when I first saw her, and she was much relieved by having a dose of oil in place of the astringents she had been taking.

[3] *Vide* Case referred to, p. 57.

inflammatory action has been overcome. Its sensitiveness to pressure is variable, but in general it is very acute. On examination per vaginam this organ is sometimes much altered, being shortened, its walls hard and inelastic, and very tender to the touch. This is more usual when the disease is deeply situated, and intimately connected with the pelvis; in which case the uterus may be so permanently displaced. The tumour, in some cases, presses so much on the rectum as fully to account for the piles and tenesmus occasionally met with, and for the bursting of the matter into that organ.[1] It is also a striking characteristic of this disease, that it is liable to have sudden and alarming exacerbations, which are attended by an increase of pain and fever, indicating those occasional attacks of peritonitis which, if not attended to, may prove fatal.

Cellulitis may terminate either in resolution,[2] which is illustrated by the second of the following cases; or in the formation of pus, apparently by far the most frequent termination. If the pus is not artificially evacuated, it almost invariably makes an outlet for itself, generally into the bowels or vagina, sometimes into both together, as is exemplified by case No. III. It may burst into the cavity of the peritoneum, which is always fatal; more rarely into the uterus, which Marchal thinks may be accounted for by the thickness of its walls.[3] It occasionally perforates the parietes of the abdomen at the iliac fossa, but sometimes near the umbilicus. When it bursts into the bladder, it is not less fatal than into the peritoneum. A case of this nature came under my notice some time ago. The patient had suffered for some time from pain in the right side, and when I saw her the abscess had burst at the upper and inner part of the thigh, and pus and urine were discharged. The pus soon almost entirely disappeared, but the urine continued to flow from the fistulous opening until her death. There was also exfoliation of the pubis. I sent her into the infirmary, where she was kept for some time, and then dismissed as incurable. She soon afterwards died delirious in a wretched hovel in the Cowgate, where she had neither a chair to sit on, nor a bed to lie on. In some individuals, metastasis of pus to the lungs is liable to occur, even although the case has not been of long duration, of which Case VI. gives an example.

Treatment.—As there is unquestionable evidence that cellulitis is, in the majority of cases, the result of incidental causes, such as constipation and injuries, which, by due care and observation might often be avoided—our first duty is to recommend means of a prophylactic character, especially when we are consulted during pregnancy. Were it more the custom for women to consult their accoucheur, and place themselves under his superintendence early in their pregnancy, and fully to explain to him their constitution

[1] Dr Lever, *Op. Cit.*
[2] *Vide* Cases reported by Pazos, Doherty, Churchill, Priestley, *Op. Cit.*
[3] *Op. Cit.*, p. 116.

and symptoms, in place of scarcely seeing him, as is frequently the case, until their labour is close at hand or commenced, there would be not only fewer cases of cellulitis, but many of those evils would be avoided which too often attend on parturition, and which no skill can prevent at the time. When an attack of cellulitis is inevitable, we ought to endeavour to effect resolution. In order to accomplish this desirable termination, it is seldom necessary to have recourse to excessive depletion by general bleeding. It is more advisable to use repeated application of leeches over the seat of the disease, and to cover the whole abdomen with a thick linseed-meal poultice, to be renewed every two or three hours, at the same time to give a full dose of calomel and antimonial powder and compound ipecacuan powder, there being five grains of each, to be followed by a sufficient dose of castor-oil. After the bowels have been freely moved, recourse may be had to small doses of calomel and opium; or, to what I have found most beneficial, small doses of calomel and James' powder,[1] in proportion of from one-fourth to one-sixth of a grain of each, minutely triturated with a small quantity of white sugar, to be taken every two hours, until the fever and pain are subdued. Blisters may be used, but they are in general less efficacious than the poultices. Narcotics, such as extract of conium, camphor, and the tincture of Digitalis, have a soothing and often beneficial effect given along with the other remedies. Should we fail in effecting resolution by the above-mentioned means, we ought carefully to watch the progress of the disease, and, as soon as it is discovered that pus has formed, to make an outlet for its escape, with a view to prevent those serious consequences which have been already referred to, when the matter is allowed to find an outlet for itself. In making an incision into the abscess, we must be guided by the situation, and always endeavour to follow the principle generally laid down in opening an abscess, of choosing as near as possible, the most dependent part, so that the pus may be readily discharged. But, if the case have been of long continuance, and the matter has nearly effected an outlet for itself—if there is no special objection—it may be proper to complete what nature has nearly accomplished, by making an incision through the thinnest part of the walls. By this means we may avoid having two openings. When the pus has found an outlet to the surface, our antiphlogistic treatment, in most instances, should cease, and we should place the patient on chalybeates and other tonics, with good diet, and change of air. When the discharge of pus is profuse, astringents may be given internally with advantage. For the hard tumour which generally remains, the best application is the iodine or the hydriodate of potash ointment, and the occasional application of a blister.

[1] I am indebted to my brother, Mr George Hamilton Bell, for pointing out to me this valuable mode of administering these medicines.

CASES ILLUSTRATIVE OF CELLULITIS.

Several of the following cases were read to the Obstetric Society many years ago, and were among the first that had been reported in Edinburgh :—

CASE I.—1*st Dec.* 1841.—I was requested to see Miss M., who was suffering from severe pain in the right hypogastric region, and dysuria. She stated that about five months previously, when walking in the suburbs, a boy struck her immediately above the right haunch with a stone, which produced so much pain and sickness that she was unable to return home for some time. Considerable swelling took place in her side, and she was quite lame for many weeks, during which she had frequent shiverings. The swelling and lameness gradually diminished, however, and she was induced to think that she was going to get well, when about three weeks ago, great difficulty in passing urine came on. She then had a profuse discharge of matter from the private parts, amounting to two pints in quantity. On examination per vaginam, the uterus and vagina appeared healthy, but the former organ was low in the pelvis, and much anteverted. The os and cervix were small. The vagina was in the virgin state, and much corrugated. To have a linseed meal poultice applied to the abdomen.

2*d Dec.*—The pain still very acute, and she has great difficulty in passing urine; but she would not allow the catheter to be introduced. To have castor-oil and continue the poultices.

6*th Dec.*—Pain more severe, and she has been quite unable to pass urine since yesterday. Her catamenia appeared to-day. She has always suffered much pain in her back during her monthly periods, but thinks it has become worse since she met with the accident; and she has been obliged to take large doses of laudanum to obtain relief.

7*th Dec.*—Pain very severe, and seems increased by the distension of the bladder, which has not been evacuated for some time. The abdomen full and distended. The catheter was used with some difficulty, as the urethra was much elongated and the bladder displaced, requiring the instrument to be pressed back towards the rectum, so as to occupy the axis of the brim of the pelvis. Two pints of urine were drawn off with great relief. To have 5 grains of Dover's powder and 3 of antimonial powder every four hours. In the evening she had less suffering, and was ordered castor-oil.

8*th Dec.*—Pain very severe, and she was unable to pass urine, but would not allow the use of the catheter in the morning. Pulse 100. To continue the powders.

11 P.M.—In great agony. Has passed no urine. Has had frequent rigors, but was then in a profuse perspiration. The catheter was used with great difficulty, in consequence of the elongated state of the urethra. About two pints of urine were evacuated. She

stated that she had much the same feelings as she had just before the last discharge of pus, and that she therefore thinks the abscess must be going to burst. To have 45 drops of laudanum, and to continue the poultices.

9*th Dec.*—She had no abatement of pain until four in the morning, when she fell asleep, and was awoke at five by a profuse discharge of pus from the vagina, which completely soaked the bed. She had immediate relief from suffering, and she has now little pain, even on pressure of the abdomen, which is much less tumid, but she was still unable to pass urine. As she complained of exhaustion, and her pulse was feeble, she was ordered half a glass of wine in negus; but, on calling in the evening, I found that she had taken three half glasses in the course of the forenoon. Her pulse was feeble, and there was a return of pain. The wine was therefore forbidden, as well as the following mixture, of which she had taken a tablespoonful every three hours:—

℞. Mist. Camphoræ, . . ℥ iij.
Aq. Ammoniæ Acetatis, . ℥ i. *M.*

On introducing the catheter the urethra seemed much shortened, and the urine came away more freely.

10*th Dec.*—Has less pain, but is still unable to pass urine. To continue the powders, and to have a belladonna plaster applied over the seat of pain.

11*th Dec.*—Pain above the pubis still severe, and not at all relieved by the plaster, which was removed and applied to the sacrum, and a linseed meal poultice applied to the abdomen. Bowels open—pulse natural.

12*th Dec.*—Feels easier, and is able to make water. Has had some rigors, and white discharge from the vagina. To have one of the following pills three times a day:—

℞. Ext. Conii. Maculati. . gr. vi.
Pulv. Rhei. . . . gr. xviii.
„ Jacobi Veri. . . gr. vi
M. Divide in pil. vi.

14*th Dec.*—Still much pain, but able to be out of bed. Has passed a small quantity of high-coloured urine. To take a powder containing a drachm of sulphur and the same of cream of tartar, twice a day in water.

15*th Dec.*—Still much pain. To continue the sulphur powder, and to take the conium pills three times a day.

16*th Dec.*—Pain more severe, and abdomen much distended. Has been unable to pass urine for some time. Severe headache. About two pints of urine were drawn off with great relief, and the distension of the abdomen was diminished. To have a blister applied over the seat of pain—to intermit the conium pills, etc. To have a black draught.

17*th Dec.*—Much pain, but has passed urine. Severe headache,

and great distension of the abdomen. Pulse 108. Skin hot—face flushed. Blister rose well. Introduced the catheter, and drew off two pints of urine. To have the following pill at bedtime, and a colocynth one in the morning :—

℞. Submur. Hydrargyri. gr. iii.
Opii.
Pulv. Jacobi Veri. āā. gr. i.
Confect. Rosæ. q.s. ft. pil.

18*th Dec.*—Less headache—skin cool—pulse moderate. Has passed urine, but with pain. Bowels freely moved with the colocynth pill. Did not take the calomel pill. To recommence the Conium pills.

19*th Dec.*—Considerable improvement, and has been able to pass urine. Continue the medicine.

20*th Dec.*—Still some pain above the pubis. To repeat the blister.

21*st Dec.*—Blister rose well. Less pain. Passed urine naturally. To continue the medicine.

23*d Dec.*—Doing well.

27*th Dec.*—Quite convalescent.

Case II.—16*th Nov.* 1842.—I was requested to see Mrs W——, by Mr Woodhead, who informed me that he had attended her in her confinement of her first child, six weeks ago, and that she had gone on satisfactorily until the 10th day, when one of her breasts suppurated. I found her suffering from acute pain in the left iliac region, which had succeeded to an attack of rigors. Pulse 120—skin hot. To have a linseed poultice applied to the abdomen, and to take the following powder :—

℞. Submur. Hydrarg. . gr. iv.
Pulv. Ipecacuanhæ. Comp. gr. v. *M.*

18*th Nov.*—Was easier yesterday, but the pain has returned more severely to-day. Bowels constipated. To have castor-oil, and afterwards the following draught :—

℞. Mixt. Camphoræ, . . ℥ij.
Liq. Ammoniæ Acetatis. . ℥j.
Vini. Antimonii. gr. xxv. *M.* ft. Haust.

19*th Nov.*—Pain increased, and unable to lie on her left side. There was not much tenderness on pressure. Tongue red—pulse 108. Skin moist. On examination per vaginam, the uterus of the natural size, and the os contracted. The vagina very tender, and the urethra swollen, and so painful that she could not bear it to be touched, and she has great suffering in making water, which is high coloured. Bowels moved by the medicine. To have a mustard poultice applied, and to take the following powder :—

℞. Submur. Hydrargyri. . gr. iii.
Pulv. Ipecacuanhæ. Comp. gr. v. *M.*

20*th Nov.*—Pain still severe. To have 2 grains of calomel every two hours, along with half an ounce of the liq. ammoniæ acetatis, and 20 drops of antimonial wine.

21*st Nov.*—Less pain. To have a blister applied over the seat of pain, to stop the calomel. To have oil, and, if necessary, an enema.

22*d Nov.*—Complaining of great pain in the back. To continue the diaphoretic mixture, and apply a linseed poultice to the back.

23*d Nov.*—The pain in the back entirely gone, but that in the abdomen more intense. To have linseed poultices applied to the abdomen, and to take 4 grains of calomel and 5 of antimonial powder immediately. To have a wine-glassful of the following mixture every two hours :—

℞. Sulph. Magnesiæ.	℥i.	
Magnesiæ, . . .	℥ss.	
Tart. Antimonii.	gr.i.	
Aquæ. Font. . .	℥xx.	*M.*

24*th Nov.*—The abdominal pain almost entirely gone. Bowels much relaxed. To have 5 drops of laudanum after every stool, and, if necessary, a starch enema, with a teaspoonful of laudanum.

27*th Nov.*—Has had little uneasiness since last report until to-day, when the pain of abdomen returned with great violence, and much tenderness and fulness immediately above the pubis—frequent desire to pass urine, with inability to do so, for twelve hours. Pulse 120—hard and wirey. On using the catheter twelve ounces of urine were evacuated, but with little alleviation of her suffering. Six leeches were ordered to be applied above the pubis, and to be followed by fomentations and injections of a decoction of poppy heads. To have two grains of calomel and one of opium.

In the evening she felt easier, although the leeches did not bleed much. To have five grains of the compound ipecacuan powder, and three of antimonial powder, every two hours.

28*th Nov.*—Less pain, and can pass urine freely.

29*th Nov.*—Still complains of pain above the pubis. To have a tablespoonful of the following mixture :—

℞. Liq. Ammoniæ Acetatis.		
Aq. Fontanæ. ā ā. .	℥iij.	
Tart. Antimonii. . .	gr.i.	
Tinct. Opii. . . .	℥j.	*M.* ft. Mistura.

1*st Dec.*—Stated that she was quite free from pain yesterday, but that pain above the pubis returned with great acuteness this morning. On examination per vaginam, the uterus seemed to be enlarged, and was so tender that the patient screamed with agony when it was pressed. Urine scanty and high coloured. To have two grains of calomel and half a grain of opium every two hours.

2*d Dec.*—Slept well, and has less pain. To continue the medicine.

4*th Dec.*—Pain still severe. Urine scanty. To have five drops of the tincture of digitalis every three hours.

5*th Dec.*—She said she had little pain. Urine free, and of natural appearance.

8*th Dec.*—At the request of the patient's friends, Dr Thatcher saw her to-day. He considered that she was labouring under inflammation of the bladder, and recommended a repetition of leeches to the abdomen, and to continue the antimonial and Dover's powder.

10*th Dec.*—Improving. Bowels freely moved, with a pill containing one drop of croton-oil and four grains of ext. colocynth.

14*th Dec.*—Has been going on well until to-day, when she suffered a good deal of pain.

℞. Submur. Hydrargyri. .	gr. iv.	
Pulv. Rhei. . . .	gr. xx.	
,, Zingiberis. . .	gr. iii.	
Ol. Menthæ. Pip. . .	gr. v.	*M.* ft. Pulvis.

Sig.—This powder to be taken at bedtime.

15*th Dec.*—Much better. She rapidly gained strength after this, and was enabled to suckle her baby, although her milk had been absent for a month.

Case III.—24*th Nov.*—Miss B., æt. 32. Very pale and emaciated, and obviously suffering great pain in the lower part of the abdomen, which comes on in paroxysms, like the pains of labour. There was much tenderness on pressure in the right hypogastric and pubic regions, with fulness and hardness immediately above the pubis. On examination per vaginam, the uterus seemed enlarged and exceedingly tender on pressure. It was so much anteverted, that the cervix lay almost horizontal towards the sacrum, and the os was small and round. She has always had great pain in the back during her monthly periods; and for many years she has been under treatment for varicose veins in the right leg, which became so troublesome fifteen months ago, that she was ordered to wear a laced-stocking from the ankle to the hip. Ever since she began to use the stocking, she fancies that the catamenia have been more scanty, and she ascribes the swelling above the pubis to the same cause. She also stated that, from the nature of her occupation, being a shop-woman, she was liable to get occasional bruises in the groin in passing round the counters. Although the lace-stocking gave much uneasiness, it was not until about nine weeks ago that the pain in the right groin became very severe, and she was obliged to have leeches applied, which gave her temporary relief; but the swelling still continued to increase until about three weeks ago, when a profuse discharge of pus took place from the rectum, followed by considerable diminution of the swelling. The discharge of pus has continued every morning since, but there is rarely any feculent matter passed at that time. The quantity of pus which has been daily evacuated, is about two ounces. Before the abscess burst, she suffered so much pain in

making water, that her medical attendant supposed that she had inflammation of the bladder, for which he treated her. To have a linseed poultice applied to the abdomen.

℞. Liq. Ammoniæ Acetatis . ℥iss.
Mixt. Camphoræ. . . ℥ij.
Vini. Antimonii. . . ℥ij. *M.*

Sig.—A tablespoonful to be taken occasionally, and when the paroxysms of pain are severe. To have castor-oil in the morning.

25*th Nov.*—The mixture relieved the paroxysms of pain, but she was unable to lie on either side from the feeling of bearing down. To continue the mixture, and to take the following powder at bedtime :—

℞. Submur. Hydrargyri. . gr. iii.
Pulv. Antimonialis. . gr. iv.
„ Doveri. . . . gr. v. *M.*

26*th Nov.*—Slept well, has less pain, suffers less from pressure. Bowels open. To continue the camphor, etc.

℞. Pil. Hydrargyri. . . gr. ii.
Pulv. Jacobi Veri. . . gr. i.
Ext. Conii. Mac. . . gr. iss. *M.* ft. Pil. mitte. vi. tales.

Sig.—One twice a day.

28*th Nov.*—Has had some paroxysms of pain, which always yielded to the camphor mixture.

30*th Nov.*—There has been little change in the symptoms since last report until this morning, when she got a fright, which produced a great aggravation in her symptoms ; and, as she was induced to think she was in imminent danger, Dr Beilby was called in consultation, who approved of the treatment. On examination per rectum, a small tumour, the size of an egg, was felt between the uterus and rectum, which was very tender to the touch. On passing the finger beyond this, another tumour was felt in the right hypogastric region, which was very painful when pressed. She passed only about an ounce of pus this morning. To continue the camphor mixture, and to take one of the following pills three times a day :—

℞. Ext. Conii. Mac. . gr. ii.
Pulv. Rhei. . . gr. iii. *M.* ft. Pil. mitte. xii. tales.

2*d Dec.*—Became unwell this morning, and has severe pain in her back and right thigh. A belladonna plaster to be applied to the sacrum. Continue the camphor, etc.

4*th Dec.*—Pain of back relieved by the plaster, and has less pain in the groin. Catamenia ceased. Continue medicine.

6*th Dec.*—Catamenia again appeared, without pain in the back, but considerable increase of pain in the groin and thigh. Has had no discharge of pus for some days. To have the painful parts rubbed with laudanum. Continue medicine.

8*th Dec.*—General symptoms have continued much the same, but severe diarrhœa came on this morning. To have a starch enema, with laudanum, and, should the bowels still continue relaxed, to have five grains of compound powder of ipecacuan after every stool.

9*th Dec.*—Diarrhœa checked by the enema. On examining the abdomen, which was fuller than usual, a circumscribed swelling was felt in the right hypogastric region, which seemed filled with air, and when tapped, yielded a sound like an inflated bladder. The patient stated, that she had observed this tumour for some time, and that it varied in size, never being long the same. Sometimes it is comparatively flat, and again it becomes full and painful, as if from flatulency. The catamenia still present, and was accompanied with clots. To have a dose of the compound rhubarb powder.

10*th Dec.*—Bowels freely moved, and the flatulent tumour quite gone. The only uneasiness she complained of was in the right patella, which was very painful. To continue medicine, and have a linseed meal poultice to the knee after it has been rubbed with anodyne liniment.

16*th Dec.*—The pain in the patella relieved. The catamenia ceased on the 10th, after continuing longer, and with less pain than usual. She has for some days suffered from flying pains in different parts, and from flatulency. To-day the pain was in the right ilium, striking across the abdomen. She also in passing urine discharged some membrane and grumous matter. To have flannel wrung out of hot water, and covered with turpentine, applied to the abdomen and ilium. Continue pills.

20*th Dec.*—The turpentine relieved the pain, and she felt so well as to be on the sofa occasionally. To have fifteen drops of elixir of vitriol three times a day. Continue the conium pill.

22*d Dec.*—Has been going on satisfactorily. She therefore stopped the conium pills two days ago. Has had to-day severe pain in the hypogastrium and tenesmus, leucorrhœa, and passed some pus from the rectum. To stop the acid, and renew the conium pills. To have an enema, composed of castor-oil and soap and water, afterwards to have one of starch and laudanum. A blister to be applied to the hypogastrium, and to be kept open with savine ointment.

31*st Dec.*—Was much relieved by the blister, and has had comparatively less pain since. Continue conium pills.

7*th Jan.* 1842.—A good deal of pus discharged from the rectum. In other respects the same.

12*th Jan.*—Slight return of pain in hypogastrium, and great increase of pus. To take twenty drops of the balsam of copaiva three times a day.

14*th Jan.*—Pain troublesome, but the quantity of pus does not amount to more than a few drops in the day. To continue the medicine.

16*th Jan.*—Severe pain extending across the abdomen, below the

umbilicus, with considerable tympanitis. As the pulse did not indicate that these symptoms were inflammatory, although obviously producing great suffering, she was ordered an enema to move the bowels, then one of starch, with 90 drops of laudanum. To apply turpentine on hot flannel to the abdomen, and to take 40 drops of laudanum.

17*th Jan.*—Much better. There was some very offensive pus discharged from the rectum.

18*th Jan.*—Pain severe, but not attended with tenderness on pressure. Good deal of tympanitis. On examination per vaginam, the uterus still much anteverted, and very tender to the touch. To have four leeches applied within the vulva, and a blister over the seat of pain in the abdomen. To take one of the following pills every hour, so long as the pain was severe :—

℞. Camphoræ . . gr. iii.
Sp. Rectificati . . gt. iii. tere et adde.
Opii. . . . gr. i.
Ext. Hyoscyami. q.s. *M.* ft. Pilula. mitte. vi. tales.

20*th Jan.*—Was much relieved after the leeches, but the pain returned last night, and prevented sleep. There was considerable fulness of the abdomen, which seemed to arise, in some measure, from retention of urine. On examination per vaginam, the parts were very hot, and the uterus still anteverted and painful to the touch. It felt as if pressed down by some superincumbent weight. The tumour in the hypogastrium diminished, and it communicated the sensation to the finger of touching a sac. The catheter was introduced, and twelve ounces of urine evacuated, with great relief. To have ten grains of Dover's powder immediately, and the following powder at bedtime, with a dose of castor-oil in the morning.

℞. Submur. Hydrarg. . . . gr. iv.
Pulv. Doveri. . . . . gr. x. *M.* ft. Pulvis.

21*st.*—Pain less severe. Pulse 100. Bowels moved once. Passed urine freely. Some leucorrhœal discharge, and a great increase of pus from the rectum. The blister rose partially.

22*d.*—Pain of abdomen more severe. To apply a blister, and repeat the ten grains of Dover's powder.

27*th.*—Able to be on the sofa again, and says she has no pain.

30*th.*—Dr Beilby and Mr Syme saw her to-day, and approved of treatment. Mr Syme considered it a case of iliac abscess, which might require to be opened, but not at present.

13*th Feb.*—Although she suffered from an attack of catarrh for some time after the last report, she had little inconvenience from the abscess until this morning, when the pain in the right groin returned, and there were several ounces of pus discharged from the rectum. To have a blister applied.

16*th.*—Pain more acute, and there was an increase of fulness and

tenderness immediately above the pubis. There was also a great increase in the discharge of pus. On examination per vaginam, the uterus was less tender to the touch, but she had great pain when it was pushed up. To have an enema, and take the camphor mixture.

21*st.*—An increase of pain. Passed about a tablespoonful of pus. To repeat the blister, and continue the camphor mixture.

25*th.*—Felt relief from the application of the blister, but the leucorrhœal discharge has assumed the character of pus. To have a small glass of strong Edinburgh ale, and continue the camphor mixture.

26*th.*—More pain. The tartrate of antimony ointment to be rubbed over the abdomen.

2*d March.*—The catamenia appeared to-day, and she felt more pained and swollen in consequence. The catamenia scanty. Pus still discharged from the rectum. The ointment had no effect in bringing out a rash. Bowels constipated. To have Gregory's mixture, and to apply a poultice to the abdomen.

3*d.*—Much pain. Catamenia scanty. To have a starch enema and a teaspoonful of laudanum.

9*th.*—General health and strength much better, and she was able to walk about the room; but there was still slight pain in the lower part of the abdomen, apparently from flatulence. To have an enema with anise seed, and to have the iodine ointment rubbed on the abdomen twice a day.

15*th.*—The iodine acted as a severe blister. Much pain and swelling of the abdomen. Pulse rapid and feeble. Bowels constipated. To have an enema to act on the bowels, and afterwards one with laudanum.

℞. Submur. Hydrargyri. . gr. ij.
Pulv. Ipecac. Compos. . gr. x.
M. ft. Pulvis. Mitte. iv.

Sig.—One to be taken every three hours. To have castor-oil in the morning.

18*th.*—No pain, but salivated. To wash the mouth with a solution of borax.

℞. Sulph. Magnesia. . . . ℥ij.
Acidi. Sulph. Dil. . . . ℥j.
Inf. Rosæ. . . . . ℥xx. *M.*

Sig.—A wine glassful to be taken every two hours in the morning until the bowels act.

29*th May.*—Now well, and able to return to her employment. She soon afterwards married, and became the subject of the next case.

Case IV.—7*th Nov.* 1844.—Mrs K——, immediately after a painful and tedious labour, was seized with a severe rigor, which was checked by taking some warm tea, and there were great hopes that it would prove merely one of those shivering fits not unusual after the completion of the third stage of labour; but this did not prove the case, as in the course of a few hours headache, pain, and tender-

ness of the abdomen came on, and she was unable to pass urine for upwards of twelve hours. Pulse 84, of moderate fulness. She got a powder, containing ten grains of Dover's powder and five of calomel, followed by a hot gruel, and the application of a large linseed poultice, which seemed to be beneficial, as the pain diminished, and she was enabled to pass urine.

℞. Liq. Ammoniæ Acetatis, . ℥iij.
Vini Antimonii, . . ℥iiss.
Aquæ Puræ, . . . ℥iij. *M.*
Sig. Cochl. quâque hora sum.

℞. Pulv. Doveri, . . . gr. v.
„ Antimonii, . . gr. iv.
Submur. Hydrarg. . . gr. ii.
M. ft. Pul. S.H.S.

8*th Nov.*—In the early part of the day she was free from headache, and the pain of abdomen less severe and only occasional. Passed urine freely. Bowels open three times. Tongue furred. Pulse 96. The lochia quite natural in colour and quantity. Perspiring profusely. In the after part of the day, the pain returned with great acuteness, rendering it necessary to apply twelve leeches, and to continue the medicines already prescribed, and although the bowels are again moved, to have a saline mixture in the morning.

9*th.*—In the morning, she had little pain except when abdomen was pressed. Pulse 100, soft; bad taste in the mouth. Bowels not moved, therefore to have an enema with castor-oil, and should it not act, to take a pill containing equal parts of henbane and colocynth, with one drop of croton oil. In the afternoon she complained of headache, great pain and tenderness extending over the whole abdomen, but more particularly at the pubis. She had a severe rigor after the enema, which unfortunately was too cold, and neither it nor the pill had any effect in moving the bowels. Pulse 132, wiry. Twelve ounces of blood were taken from the arm, which produced syncope, and she felt much relieved. Two dozen leeches were ordered to be applied over the seat of pain, and a pill, containing six grains of calomel and one of opium to be taken. The diaphoretic mixture to be continued, as well as the poultices, after the leeches came off. In the evening Dr Beilby saw her, when she had less pain and tenderness; tongue cleaner; pulse 108, moderate; bowels well opened. Lochia diminished. Only eighteen leeches fastened.

℞. Calomel, gr. xij. Opii. gr. iij.
Conserv. Rosæ, q.s. *M.* Divide in pil. xij.
Sig. Unam quâque hora sumend.

10*th.*—With Dr Beilby. Morning. No pain except on pressure; tongue cleaner but dry; bowels open; pulse 96; thirst and headache gone. Felt still better in the evening, and inclined for food; skin moist; pulse 108. The lochia rather pale, and of moderate quantity. To have oil in the morning. Breadberry for diet.

11*th*.—Had some sleep; pulse 96; bowels moved twice. Slight return of pain and tenderness. To have the following pill:—

℞. Submur. Hydrarg. Pulv. Scammonii, ā ā gr. ij.
Ext. Hyoscyami, gr. j. *M*. ft. Pil.
Sig. To be taken immediately.

The opium and calomel to be given less frequently. In the evening she had no pain, and only slight tenderness; some appearance of milk; skin moist; pulse 96. As the bowels had not been moved, to have an enema, and, if necessary, oil in the morning.

12*th*.—All her symptoms improved in the morning, pulse 90; and in the evening she seemed in a still more satisfactory state. Bowels moved three times. Slightly salivated. The calomel pills to be given only every three hours, and to have Gregory's mixture in the morning.

13*th*.—Eleven A.M. Slight tenderness on pressure in the left groin; pulse 88. Bowels not moved, to have oil. In the evening, much relieved by the action of the oil; no tenderness; pulse 88; tongue moist, and cleaning at the edges. The pills to be given only every four hours. To have the following ointment rubbed on the abdomen twice a-day, and poultice to be continued:—

℞. Ung. Hydrarg. . . ʒj.
Opii. . . . . gr. x. *M*.

14*th*.—Noon. No pain nor tenderness, pulse 80. To have Gregory's mixture.

15*th*.—No pain. Lochia still flowing. To have chicken soup, and the Gregory's powder to be repeated.

16*th*.—No complaint except from the salivation. She passed a worm, she said, about a quarter of a yard long, which, from her description, must have been a lumbrici. She had long suspected that she had worms, as she felt something moving in her abdomen.

19*th*.—Has been going on satisfactorily, and been able to be on the sofa, her only uneasiness being from the salivation.

20*th*.—Not so well; suffering from diarrhœa, for which she got an astringent mixture.

30*th*.—Still salivated, and she has been occasionally suffering from pain in the abdomen, which she ascribed to flatulency, although it was so severe sometimes as to require fomentations and a mustard poultice. As there was a probability that there might be more worms, she got an injection with an ounce of turpentine. To have Dover's powder at bedtime.

1*st Dec*.—Complained of much pain in the lower part of the abdomen. Salivation. On examination per vaginam, the uterus was found reduced to its natural unimpregnated size. To have a turpentine injection, and to have the following liniment rubbed on the abdomen:

℞. Ol. Camph. . . . ʒi.
Ol. Croton Tiglii. . . ʒss. *M*.

3*d*.—Much better.

℞. Pulv. Columbæ. Carb. Sodæ, ā ā ʒi.
„ Rhei. Pulv. Zingiberis, ā ā gr. xxx. *M.*
Divide in pulveres vi.
Sig. One to be taken in water twice a-day.

11*th.*—Complained of acute pain immediately above the pubis, where there was a tumour about the size of the uterus, at the fifth month. To have the following medicine immediately:—

℞. Ol. Ricini. . . ʒi.
Terebinthinæ, . . ʒss. *M.*

The pain having increased towards evening, a blister was applied over the tumour.

13*th.*—Professor Simpson saw her to-day, when she complained much of the pain. Pulse 108, feeble. Bowels freely moved, and a quantity of scybalous matter discharged. On examination with the uterine sound, the uterus seemed anteverted; and on examination, per rectum, nothing could be felt except the cervix uteri. Leeches to be applied, and to have small doses of calomel during the day, as at the commencement of her illness, and ten grains of Dover's powder at bedtime.

14*th.*—The abscess burst into the rectum about nine this morning, and she feels and looks much better. Pulse 84. Slept well during the night. To have an injection. Nourishing diet.

15*th.*—Still pain and swelling above the pubis, but the sickness is entirely gone. A large quantity of pus discharged from the rectum. Feels inclined for food.

24*th.*—Has been going on satisfactorily until to-day, when she had a return of pain in the back and sickness. To have Cal. and Dover's powder, and a saline draught in the morning.

25*th.*—Better, and able to be on the sofa.

18*th Jan.* 1845.—Quite well.

Case V.—14*th Nov.* 1846.—Mrs M'D., æt. 25, of delicate and strumous constitution; recently returned from India. Complains of severe pain in her back and lower part of the abdomen, which is much increased at her monthly periods; heat and pain in passing urine; frequent nausea and constipation; her bowels being seldom moved without medicine or a lavement. She is easily fatigued, and the slightest exertion in walking produces pain in her sides. These symptoms had been much increased by the anxiety and distress of attending upon her husband, who died about eleven months ago, just three weeks after their marriage. In consequence of the fatigue she was exposed to on that melancholy occasion, her catamenia came on and flowed longer and more profusely than usual; and when they ceased, her abdomen became much swollen, and again diminished after a profuse discharge from the vagina. She could give no account of the nature of this discharge, but she was induced to suppose it was a return of her monthly period. On examination per vaginam, the uterus felt swollen, and was acutely painful on

the posterior part of the body, and it pressed so much upon the rectum, as to occasion great suffering when the bowels were moved. Four leeches were applied to the uterus itself, and the vagina afterwards washed out with warm water. She was ordered to keep the recumbent posture and to take the following medicines:—

℞. Ext. Conii. Maculati. . . gr. ii.
Pul. Jacobi. Veri. . . . gr. iij.
M. ft. Pilula. Mitte. xii. tales.
Sig. One to be taken twice a-day.

℞. Fol. Conii. Macul. . . ℥i.
Aq. Fontanæ, . . . ℥xxiv.
Decoque ad ℥xx. et col.
Sig. This decoction to be used as an injection twice a day.

21*st Nov.*—The uterus still tender to the touch, and there was considerable pain and rigidity of the vagina. Bowels constipated. The skin covered with a rash. Four leeches to be applied to the womb.

℞. Sulphuris, ... ʒss.
Supert. Potassæ, . . . ʒi.
M. ft. Pulv. Mitte vi. tales.
Sig. One twice a-day.

24*th Nov.*—Still pain in the region of the womb, but the rigidity and tenderness of the vagina nearly gone. Slight headache, which induced her to omit the conium. To continue the sulph. powders, and to have six leeches applied to the vulva.

27*th Nov.*—The vagina and womb less tender, and there is no pain on going to stool. The rash entirely gone from the face. To continue the sulph. and cream of tartar. Four leeches to be applied to the vulva, and the following mixture to be used as an injection.—

℞. Acet. Plumbi . . . ʒi.
Tinct. Opii . . . . ʒi.
Aq. Fontanæ. . . . ℥xx. *M.*

1*st Dec.*—Much the same as last visit. Three leeches to be applied to the womb.

℞. Tinct. Digitalis, . . . ʒi.
Vini. Antimonii, . . . ʒij.
Aq. Fontanæ, . . . ℥vi. *M.*
Sig. A tablespoonful three times a day.

8*th Dec.*—Has been suffering from severe catarrh since last report, for which she had the usual treatment. Much pain in the region of the uterus, and constant desire to pass urine, with inability to do so. The catheter was introduced with great pain, from the inflamed state of the urethra, and a small quantity of pale coloured urine drawn off. To have a linseed poultice applied to the abdomen.

9*th Dec.*—Still much pain in the left groin.

℞. Mixt. Camphoræ.
Liq. Ammoniæ Acetatis ā ā . ℥iij:
Vini. Antimonii, . . . ʒi. *M.*
Sig. A table spoonful to be taken every three hours.

1*st Jan.* 1847.—Since last report, has suffered much from occasional exacerbations of pain, which required the repeated application of leeches; and from catarrh and other ailments, for which she took various antiphlogistic and cooling medicines. She was much alarmed this morning by a profuse discharge of pure pus from the vagina, with considerable increase of pain in the region of the uterus. To have castor-oil, to apply a linseed poultice to the abdomen, and to continue the injections of Goulard water and opium.

2*d*.—The discharge of pus still continuing. To have a blister applied to the abdomen, and to keep it open by means of sabine ointment.

3*d*.—The blister rose well, and having been dressed with the sabine ointment, so much irritation was produced that she was seized with a hysterical attack, which alarmed her so much, that Dr Alison was requested to see her. He ordered her to have some camphor mixture, and to have suppository, containing five grains of the extract of conium to relieve the pain in the womb, and a poultice to be applied to the blistered surface.

4*th*.—Less pain, and no tendency to hysteria in the morning; but there was a slight threatening of it in the evening, which was checked by the camphor mixture. Her catamenia came on in the morning, which may account for the hysteric symptoms. Bowels moved by an enema.

5*th*.—Much less pain. Catamenia natural. Blister healing. To take pills containing camphor and conium. To have an enema, with castor-oil.

6*th*.—Easier. Passed a large quantity of pus by the rectum, which led her to mention that, for the last eighteen months, she has, from time to time, had a similar discharge, but that she considered it was merely the consequence of the dysenteric attack she had when in India, and she did not think it was necessary to say anything about it. The sabine ointment to be applied to the blister.

11*th*.—Has had comparatively little pain since last report. On examination per vaginam, the uterus seemed smaller, and there was less tenderness on pressure. Pus coming both from the rectum and vagina. To continue the opium and lead injections.

℞. Vini. Colchici, . . . ʒiv.
Magnesiæ, ... ʒi.
Aqua Ammoniæ Acetatis, . ʒvi. *M.*
Sig. A tablespoonful to be taken three times a-day.

16*th*.—Much the same, with the exception that she has had repeated headaches. To stop the colchicum mixture. The bowels to be kept regular by the sulphur and cream of tartar powders. To have pills containing Gallic acid.

21*st*.—The discharge of pus both from the rectum and vagina diminished, apparently by the use of the Gallic acid pills. As she

still suffers pain, to have the abdomen rubbed twice a day with the following liniment :—

℞. Lin. Ammon. Comp. . ℥ iv.
Tinct. Opii. . . . ℥ ss.
M. ft. Linimentum.

25*th.*—Expression of countenance improved, although there has been an increase in the quantity of pus, and she has passed, she says, from the vagina, some small calculous and gritty substances. The liniment was so irritating to the skin that she gave up using it.

27*th.*—No more calculi have been passed. Pus diminished. The uterus still low in the vagina, which is very painful to the touch. To take the following in place of the Gallic acid pills :—

℞. Sulph. Zinci. . . gr. xii.
Pulv. Myrrhæ. . . ʒss.
Conserv. Rosæ. q.s. *M.* Divide in pil. xii.
Sig.—One twice a day.

℞. Ext. Belladonnæ. . ʒi.
Unq. Simplicis. . . ℥i. *M.* ft. Ung.
Sig.—This ointment to be rubbed on the perineum occasionally.

28*th.*—Less pus. To continue the zinc pills.

3*d Feb.*—Became unwell on the 1st. Catamenial discharge natural. She interrupted the use of the zinc pills, and there has been an increase of the discharge of pus. To take the conium pills three times, in place of twice a day, and to resume the zinc pills when the catamenia has ceased.

8*th.*—An increase of pus from the rectum, but a diminution of it from the vagina.

9*th.*—In consequence of the pain having become more severe in the back, she supposed that she must have some disease in the spine, and therefore Mr Syme was requested to see her to-day. He corroborated the opinion she had already got, that there was nothing the matter with the spine, and that the pain in the vertebræ was merely sympathetic. To continue the zinc pills a little longer, and then to take small doses of the saccharine carbonate of iron, and have counter irritation applied to the abdomen.

15*th.*—The iron does not appear to agree, as there has been a great increase in the discharge of pus, and she has suffered from spasms in the abdomen, and headache. To take oil and resume the zinc pills and omit the iron.

8*th March.*—Little change, there being still a large quantity of pus. To take the following medicine in place of zinc pill :—

℞. Tinct. Catechu. Tinct. Kino. ā ā. ℥ij.
Sig.—A teaspoonful three times a day in water.

13*th.*—Has more pain, but the pus is more consistent, and she feels stronger.

15*th.*—Thinks the tincture pains her, but as she was improving in appearance and strength, it was ordered to be continued.

18*th.*—Gaining strength, although still a considerable quantity of pus discharged from the rectum.

21*st.*—Continuing to improve. To take powders containing columba, rhubarb, soda, and aromatic powder.

8*th.*—At the sea side. Was fatigued with her drive, but in other respects better, the discharge having diminished in quantity. To continue the columba powders, leaving out the rhubarb, which does not agree. To sponge the body with tepid sea water.

15*th.*—Has been gradually improving since last report, although her progress has been occasionally interrupted by attacks of catarrh and biliousness. She has no discharge of pus from the vagina, but there is still a little from the rectum on going to stool. On examination per vaginam, the uterus felt of its natural size, and was quite free from pain and tenderness. The swollen and tympanitic state of the abdomen entirely gone. The only thing she now complains of is an occasional pain in the region of the liver, and biliousness.

This patient afterward became very robust in her appearance, and enjoyed good health.

The next case is interesting, from its rapid progress and fatal termination, and the complications found on dissection, for a description of which I am indebted to my friend, Dr Haldane.

Case VI.—Elizabeth Gibson, æt. 25, was delivered of an illegitimate child in the beginning of Dec. 1854. I saw her on the 8th of the following January, when she stated that she had been mismanaged by the midwife who attended her in her confinement, and that immediately after her delivery, she was seized with inflammation of the abdomen, from which she had suffered ever since. She was obviously labouring under cellulitis, complicated with peritonitis. She had frequent rigors, rapid small pulse, feverish hot skin, and great pain and tenderness of the abdomen, which was as large as at the full period of gestation. Finding that she was a pauper, and that she could not have that attendance which her case required, I recommended her to go into the infirmary, where she died a few days after her admission.

Appearances on dissection.—The heart was healthy. In the lower lobe of either lung were divided collections of purulent matter; these were mostly superficial, some being immediately below the pleura, and were obviously of a metastatic character. The intervening pulmonary tissue was not condensed. On the surface of the peritoneum lining, the lower part of the abdomen, as well as the pelvis, were several small shreds of soft yellowish lymph. There were also about eight or ten ounces of a dirty sero-purulent fluid in the peritoneal cavity. A large abscess was found in the pelvis, on the left side. It was full of yellow purulent matter. The abscess was not limited to the pelvis, but passed upwards behind the peritoneum, so as to rise as high as the lower margin of the kidney. No

communication could be traced between the abscess and the cavity of the peritoneum. The uterus was very little above the natural size. The os, however, was dilated, so that the finger could pass readily into the cavity of the uterus. Its lips were red, soft, and tumified. The tissue of the uterus was soft and very readily lacerable; it had also at some places a distinctly yellowish colour, where it appeared to be infiltrated with purulent matter. The veins in the broad ligaments were carefully examined, but no purulent matter could be detected. Nothing was detected in the vena cava, or any of the other abdominal veins. The liver was of a pale colour, and rather more friable than natural; it contained, however, no trace of abscesses.

Before concluding my remarks on cellulitis, it is right to state, after asserting that operations on the uterus are, apparently, liable to give rise to the disease, that only two instances of the kind have come under my notice. In the one case, the lady died after prolonged suffering, after having undergone an operation on the uterus, the precise nature of which was not explained to me by her usual medical attendant. On the examination, at which I was present, the abdominal organs were found extensively implicated in the inflammatory action. The other case occurred in a lady, who, having been several years married without having a family, was induced to submit to the operation of slitting open the os uteri. She informed me that excessive hemorrhage immediately took place, and she was unable to return home for many hours. I was afterwards sent for and attended her in cellulitis, which ran a rapid course, and she made a good recovery.

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